

THAT WHICH IS CLAIMED IS:

1. A method of operating a solid state image sensor having an image sensing array comprising a plurality of active pixels, the method comprising:

resetting each said pixel;

5 after a first predetermined period of time
reading a first output from each said pixel so as to
obtain a first set of image data having a first dynamic
range;

without resetting said pixels, after a second
10 predetermined period of time reading a second output
from each said pixel so as to obtain a second set of
image data having a second dynamic range; and

combining said first and second sets of image data in order to obtain a resultant set of image data having a further dynamic range different from said first and second dynamic ranges.

2. A method as claimed in Claim 1, further comprising, without resetting said pixels, after at least a third predetermined period of time reading at least a third output from each said pixel so as to
5 obtain a third set of image data having a third dynamic range; and

combining at least said first, second and third sets of image data in order to obtain a resultant set of image data having a further dynamic range different from said first, second and third dynamic ranges.

3. A method of operating a solid state image sensor having an image sensing array comprising a

plurality of active pixels, the method comprising:

- resetting and immediately reading a
- 5 preliminary output from each said pixel;
- after a first predetermined period of time,
- reading a first output from each said pixel.

- 4. A method as claimed in Claim 3, further
- including the step of determining the difference
- between said preliminary and first outputs so as to
- obtain a set of image data substantially free of noise
- 5 components represented by said preliminary outputs.

- 5. A method as claimed in Claim 1 or Claim
- 2, in combination with a method as claimed in Claim 3
- or Claim 4, wherein said preliminary outputs of Claim 3
- or Claim 4 are read immediately after performing the
- 5 resetting step of Claim 1 or Claim 2.

- 6. A method as claimed in Claim 5, further
- including the step of determining the difference
- between said preliminary outputs and each of said
- first, second and any subsequent outputs so as to
- 5 obtain a plurality of said sets of image data each of
- which is substantially free of noise components
- represented by said preliminary outputs.

- 7. A method as claimed in any preceding
- Claim, wherein the or each said predetermined time
- period is selected to be an integer multiple of a
- predetermined lighting flicker period.

- 8. A method as claimed in any preceding
- Claim, wherein said image sensing array remains

continuously exposed to incident light while the method is performed.

9. A solid state image sensor adapted to perform a method as claimed in any one of Claims 1 to 8.

10. A solid state image sensor system adapted to perform a method as claimed in any one of Claims 1 to 8.

11. A camera incorporating a solid state image sensor or image sensor system adapted to perform a method as claimed in any one of Claims 1 to 8.